The New York Times.

Published every day in the year by The New York Times Company

ADOLPH S. OCHS, *Publisher 1896-1935*
ORVIL E. DRYFOOS, *Publisher 1961-1963*

The Dead Planet

Mars is probably a dead planet. The astronomers of past decades who thought they detected canals on the Martian surface and speculated that it might have bustling cities and beings engaged in lively commerce were victims of their own fantasies. So, too, were the science-fiction writers who made Mars a realm of epic battles and of weird but fascinating civilizations. The red planet is not only a planet without life now but probably always has been.

Such, tentatively at least, are the conclusions suggested by the remarkable pictures released yesterday —pictures that fully support the impression of a most inhospitable planet given by the earlier reported findings of Mariner 4. Mars, it now appears, is a desolate world of a strangeness almost beyond imagination.

Its surface bathed in deadly radiation from outer space, it has very little atmosphere and has probably never had large bodies of water such as those in which life developed on this planet. And, despite the craters evident in the incredibly clear Mariner 4 pictures, it seems to have no mountains or other topographical features that would testify to the kind of dynamic instability below the surface that has produced the varied landscape of this planet.

All such conclusions must be tempered, of course, by at least two cautions: Mariner 4—now more clearly than ever the most productive and successful scientific achievement of the space age—photographed only a small fraction of Mars's surface; there could conceivably be surprises elsewhere on that world. Moreover, of course, the almost infinite adaptability of life here on earth raises the slight possibility that some very primitive organisms—perhaps of a kind totally foreign to human experience—may have evolved and exist on Mars now. But the likelihood is infinitesimal.

The historic data sent back by Mariner 4's instruments and camera seem to refute the thesis of the National Academy of Sciences panel which last April argued it was "entirely reasonable" to believe that Mars had "living organisms and that life independently originated there."

But the great doubt now cast on that belief does not in any way invalidate the case for an energetic program to investigate Mars further by rocket-borne instruments. One or several additional Mariner flights to photograph other parts of Mars would be well worthwhile in the years immediately ahead. After that could usefully come camera-equipped satellites orbiting Mars and, still later, instrument capsules soft-landed on Mars.

A whole host of new sciences is being born—extraterrestrial geology most obviously among them. By learning more about Mars—even a lifeless Mars—men will understand better the origin of the solar system. And, by being able to compare the red planet in greater detail with this earth, new understanding will evolve of why there is life here and, apparently, none there. The exploration of the planets has begun and more than one generation will be required to finish that task. But, so long as men stand on this puny globe and gaze wonderingly at the lights in the sky, they will remember that the first successful pioneer was named Mariner 4.